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JULY

1940

Truck Buyers Demand Facts -

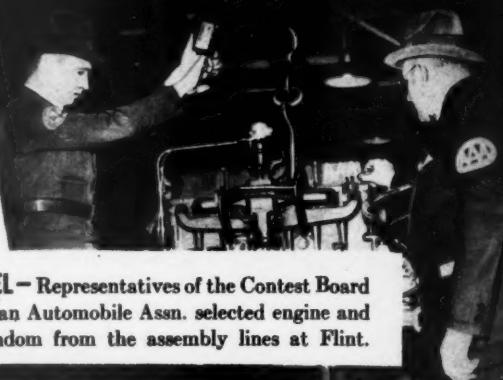
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STOCK MODEL - Representatives of the Contest Board of the American Automobile Assn. selected engine and chassis at random from the assembly lines at Flint.

NEVER before was a truck subjected to so conclusive a test as that which a stock model 1½-ton Chevrolet, with a 2½-ton load, underwent between January 11, 1938, and January 19, 1940, covering 100,015.9 miles under working conditions.

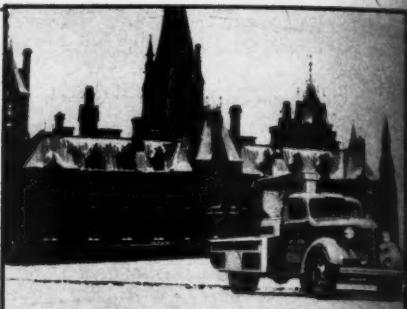
Every mile was under the observation of the Contest Board of the American Automobile Association, whose certificates of performance are recognized in this country and abroad as official.

CHEVROLET MOTOR DIVISION, General Motors Sales Corporation, DETROIT, MICHIGAN



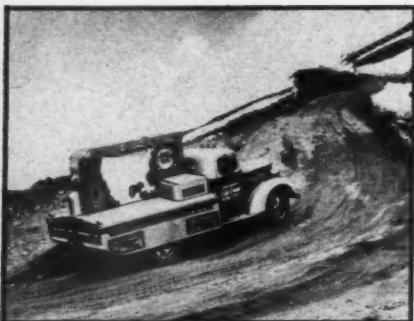
OFFICIAL LOGGING OF RUN-

Every item of cost was entered in detail by A.A.A. observers on the truck throughout the test.



AT CANADA'S CAPITAL - The

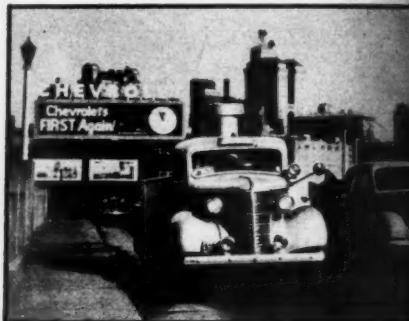
truck left Detroit January 11, 1938, for Ottawa, Canada, to start its goodwill trip to Mexico City.



UP PIKES PEAK - After 52,819 miles of the test, the truck, with 2½-ton load, climbed to the summit of Pikes Peak without trouble of any kind.



AT DEATH VALLEY - The test went from 14,000 feet altitude to 280 feet below sea level—meeting every condition of highway.



STILL GOING STRONG - At the finish, the truck was running perfectly. For the last 10,000 miles, the oil mileage was better than for the whole run.



INSPECTION AT FINISH - Many working parts were still within production dimensions; none was unfit for further service.



100,000-MILE TEST ROUTE - Canada and Mexico were included in the test. Each of the 48 States was visited at least twice.

Here's the Record!

| | |
|--|---|
| Number of miles | 100,015.9 |
| Payload | 4590 lb. (exclusive of driver and observer) |
| Gross weight | 9260 lb. (with driver and observer) |
| Average speed | 33.07 miles per hour |
| Average miles per gallon of gasoline | 15.10 |
| Miles per quart of oil consumed | 1072 |
| Oil actually consumed | 93.29 quarts |
| Total operating cost per ton mile, including gas, oil, lubrication and repairs and replacements (including twelve tires) | \$0.00419 |

JULY

VOL. 60

1940

No. 7

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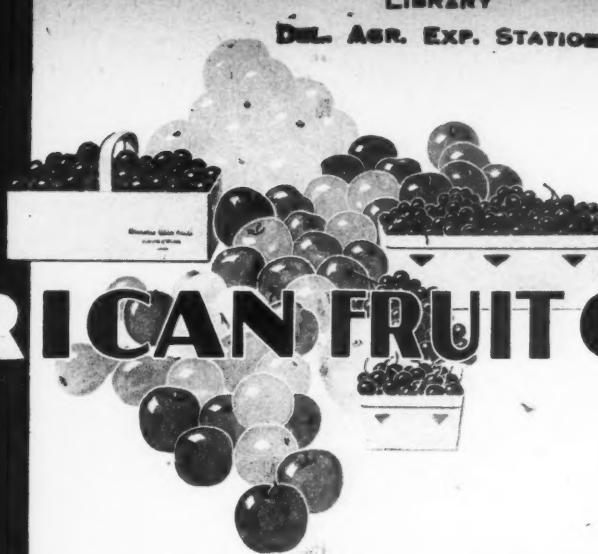
AMERICAN FRUIT GROWER

The
NATIONAL FRUIT MAGAZINE

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Color illustration—Picking pears near Placerville, El Dorado County, California. Photograph courtesy The Blue Anchor.

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QUALITY, THE KEYSTONE OF FRUIT SALES

In this issue of AMERICAN FRUIT GROWER is given an analysis of marketing adjustments of the apple industry which deserves careful study. That the marketing problem is in large part a responsibility of the grower himself and not the Great White Father at Washington is becoming more and more apparent. Much can be and is being done by special agencies and by the organized merchandising groups and the apple industry is under great obligations to them. But the grower is always in the picture, for a quality product is easier to sell than an inferior one. Quality production must also be economical production if a profit is to be realized.

The problems that face the industry center about marketing, especially how to sell more apples and other fruits, how to interest the consumer in the health and dietetic value of fruits, how to get fresh fruits into the hands of the consumer in prime quality, and how to spread the sales over the season without producing gluts.

In emphasizing the responsibility of the grower in trying to solve these problems and encouraging him to find new outlets for his produce, we beg to call his attention to two of the items even as early as midsummer, for it is only by laying plans well in advance that they can be worked out.

The first of these has to do with that overworked word "quality". Surely the patience of the public is phenomenal when it comes to the quality of fruits so frequently offered to them in the retail store. When will the fruit growers learn that sales cannot be increased when wilted, bruised, blemished fruit is exhibited in stores and often in unsightly packages at that!

Not only must the fruit of the future be sound and clean, but it must be offered when it is in prime condition for the variety. Unless the eating or cooking quality is right, repeat customers are not made. Nothing is gained by blaming the grocer, for in the end the lack of sales comes back on the producer.

E. R. French touched on this in his address at the recent Rochester meeting of the National Apple Institute, when he said: "One of the most pressing problems common to us as food merchants, and you as growers, is how to improve the condition of apples as they are offered in stores. A thorough study of the subject should be made, preferably from a grower's standpoint, as to the causes of poor conditions; and what methods of display are most effective." In the end, these are the grower's problems.

The second of these items has to do with improving sales or distribution of fruit.

Here we might take a page from the book of other merchandisers who cater to the wishes and needs of the individual consumer. At first thought the apple business would seem to be too big to consider the individual consumer. But it is no bigger than the milk business, and the commodity is no more perishable.

The additional suggestion we have in mind is the development of a retail route by orchardists who are near towns and cities. The city dweller, even the denizen of the most thickly populated part of a city, could be interested in having delivered at his door a package of apples, say once a week. This might be a dozen apples, a half peck, a peck, or what not. The fruit would be guaranteed as to quality, variety, freshness. The order might be regular for three months; six months, or nine months. Not only would this be a great convenience on the part of the buyer, but those purchasers would be reached who do not now buy regularly of the retailer and the orchardist-merchandiser would not be as great a competitor of the retailer as it would seem at first thought.

Of course the practicability of such a plan depends on volume. A large number of such customers would reduce the cost of any one delivery to both parties concerned. The plan has already been tried and it seems to us to be worth a trial by others.

Not only are apples so marketed, but also grape juice, cider and other like commodities. As in many other things, what we smile at today becomes a reality tomorrow.

AMERICAN FRUIT GROWER

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MARKETING ADJUSTMENTS THE APPLE

By PORTER R. TAYLOR



PORTER R. TAYLOR

THE primary problem of the apple industry is the restoration of apple production to a profitable basis at least for the efficient grower with a reasonably good market outlet. This is a nationwide problem, and not simply a regional, local or individual one.

The scope of the problem may perhaps best be illustrated by the large volume of surplus apples which it has been necessary for the Federal Surplus Commodities Corporation to buy during the present (1939-40) season in 24 states. The problem of restoring apple growing to a profitable basis is not the result of increasing production, as commercial production has been gradually declining during the past 10 years. The problem is more complex and the result of several factors.

Apple growers as a group are themselves largely responsible for present conditions in the industry. Most growers have concentrated their attention upon production without realizing it is just as important to sell efficiently as it is important to produce efficiently. The industry has not realized that changes in distribution methods during the last decade have placed upon the producer himself the major responsibility for making marketing decisions. As yet, most producers have neither the experience nor the information necessary for exercising proper judgment in making such decisions.

Marketing experience of the past decade indicates that it has been impossible to market much more than 75 million bushels of apples in domestic markets as fresh fruit and secure reasonable prices to growers. Therefore, it appears highly desirable to work out some program for limiting the quantity marketed domestically in fresh form in years of large production to an amount approximating this figure.

Prior to the outbreak of the cur-

rent war in Europe, we were more dependent upon the export market as an outlet for our fresh apples than we were prior to the outbreak of the First World War. United States fresh apple exports averaged 3.6 million bushels for the five years preceding the First World War as compared with an average of 8.6 million bushels exported to Europe during the past five years.

Our fresh apple exports to all countries in recent years have averaged between 10 and 11 million bushels, but, because of recent European controls, the volume exported this season has been about three million bushels. Unless these trade restrictions are withdrawn, a small export volume may be expected as long as hostilities continue. If the war lasts for any considerable period of years, those countries which have bought from us will find it difficult after the war, if not impossible, to finance the purchase of a volume of fruit such as they have in the past. Certain countries, also, have expanded their domestic production to a degree which substantially reduces the need to import from other countries.

Total production of all fruits during the past three years has exceeded any previous years. This is not due to any expansion in the total apple crop, which has actually shown a decline over a period of years. On the other hand, most other fruits, especially oranges and grapefruit, have increased in volume during the same period. The total production of these two citrus fruits in the 1938 season was over 120 million boxes, as compared with an average of 73 million boxes during the previous 10-year period. Citrus production during the next five years may be expected to approximate the high volume of the 1938 season.

The pear crop has now reached approximately 30 million bushels. The gradual expansion in total pear production makes pears available to the consumer in steadily increasing amounts at the same time apples are being marketed.

The increase in peaches outside of California has not been excessive, but new plantings in many of the important producing states indicate

that there is likely to be a considerable increase in the volume of peaches placed on the market in the future. Apple growers are perhaps fortunate that these peaches do not compete with their fruit except during the late summer months.

Plantings of apples in recent years appear to have been of more desirable market varieties, mostly Delicious, Jonathan and McIntosh, or dessert varieties of similar character. This has been a favorable factor from the market standpoint because of the acceptability of these dessert varieties by consumers. However, these varieties have a relatively short storage life during which their

From his post as Chief, General Crops Section, Division of Marketing and Marketing Agreements in the U.S.D.A., Mr. Taylor has looked hard and long at the apple industry. When he was asked to address the Sixth Annual Meeting of the National Apple Institute recently held at Rochester, N. Y., on the more important factors which must be considered by the National Planning Committee in the development of a long-time program for the apple industry, Mr. Taylor rolled up his sleeves and proceeded to make a factual analysis of the apple kingdom which fairly galvanized his hearers and left them with their ears slightly red. Because his observations are so important, and because he does not pull any punches, AMERICAN FRUIT GROWER presents on these pages a digest of Mr. Taylor's talk in the sincere belief that every grower in the country should read and heed the advice and suggestions it contains.

quality is high, and therefore must be moved very freely during their normal marketing period if the fruit is to be absorbed in consuming channels at reasonable prices.

In recent years surpluses of most summer varieties of apples have been troublesome. Many of these summer varieties were planted to produce fruit for local consumption at an earlier date in certain producing areas. Now these varieties, most of which are not of high quality from a consumer standpoint, are being forced to meet the competition of the midseason varieties produced in earlier maturing districts.

The problem is further complicated by this low-quality summer fruit remaining in retail stores be-

FACING INDUSTRY

yond its normal marketing period, lessening the demand for later varieties and delaying the marketing of late fruit. Undoubtedly there should be a substantial reduction in the production of fruit of this character to eliminate outright losses which many growers have incurred in recent years.

The industry has become increasingly aware that a primary cause of low apple prices has been the marketing of culls. In general, growers have endeavored to sell their poorest apples first at the time of harvest, planning to store and to market their better quality fruit later in the season. If the best quality of apples were offered for sale immediately at the time of harvest, greater consumer satisfaction would result and repeat sales would be more frequent.

Several methods of approach could be used by the apple industry to restrict the quality of apples marketed in fresh form. Among these is state and Federal legislation that requires the marking of the grade of apples on the package and at the time of sale by the retailer. Fruit not meeting the requirements of any specific grade is marked "culls." Washington and Missouri appear to have had considerable success in operating under laws of this character.

Federal legislation would be required if the quality of apples shipped in interstate commerce were to be restricted. Since 1933, export shipments of fruit below the Utility Grade have been prohibited under the Apple and Pear Export Act. This act might readily be amended to apply to interstate as well as to foreign commerce.

Another approach could be made through making apple marketing agreement programs available to all states by amending the Marketing Agreement Act which now authorizes such agreements and orders applying to apples grown only in the states of Washington, Oregon and Idaho. This would enable the apple industry in any particular state or states to have a marketing agreement program which would permit growers and shippers to restrict the grades and sizes of apples shipped in interstate commerce if and when

(Continued on page 12)

"A number of problems exist in the retailing of fruit, which need further study and experimentation. One of these involves the need for some method for improving the condition of fruit displayed in retail stores. Studies are being made to determine the effect of reducing the amount of apples on display at a particular time as a means of securing a more rapid turnover, with resulting improvement in the condition of the fruit."



"In the past several years you have pioneered a new field in your co-operation with wholesaler and retailer groups, and much further progress is certain to be made along these lines in the future. We must realize that the retailer and all others in the chain of distribution are essential factors in the marketing process, and the net return which the growers ultimately receive for their apples depends upon the efficiency and economy of distribution."

PUTTING THE PEACH CROP INTO CONDITION

By M. J. DORSEY

University of Illinois

1—A good tree type for heavy yields but a poor one for color and quality if the set is heavy.

2—The end of the season in the tree type shown in Photograph 1. Low quality, poorly colored fruit.

THE peach, at its best, is one of the most attractive of all the edible fruits. The appeal to the senses made by a nice ripe peach is not surpassed by any of the other northern fruits. Unfortunately, when the peach is at its best, it should be handled as carefully as an egg. Those who have had the experience of going to the orchard and picking a peach directly from the tree when it is "dead ripe" and at its best know that a soft, juicy peach has to be "handled like an egg."

Eggs, however, are not shipped in bushel baskets; neither can ripe peaches be handled in this way. A compromise between carrying quality and eating quality has to be made, then, in putting peaches on the market. Since all of the orchard practices have to be "headed" toward or brought to a focus in the harvested crop, note will be made of some things to be taken into consideration in balancing up the jobs to be done in producing a crop.

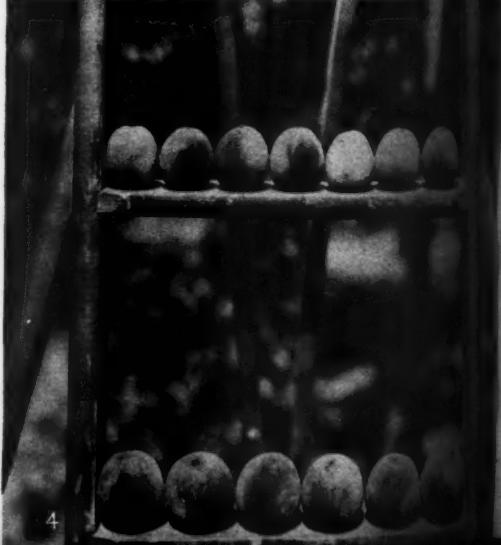
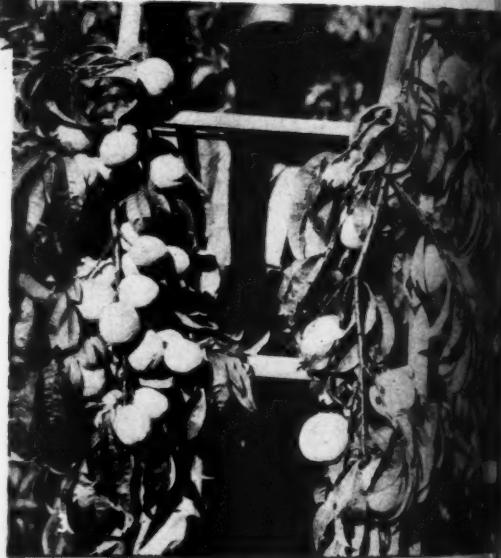
We might begin by evaluating some of the things which have been done thus far in the season, insofar as they have a bearing upon the size of the crop and the size of the fruit.

Considering pruning first, it only need be mentioned that since this practice is carried out, for the most part, during the dormant season, it is of primary interest now in the way it has influenced the total crop load on the tree. It would be possible, of course, to cut the entire crop off in pruning, but careful counts show that a moderate type of cutting removes only

3—Relationship between size and number is well illustrated here. Reference to table in article will show how much yield has been cut by the thinning shown on right in photo.

4—An overloaded tree produced the fruit at top; a thinned tree with about 1200 peaches bore the fruit below. It is about two to two and one-quarter inches versus two and one-quarter to two and one-half inches when the crop excess is only 800 to 1000 fruits per tree.

AMERICAN FRUIT GROWER



about one-fourth to, at most, one-half of the fruit buds at the time the work is done.

Pruning, of course, has a bearing upon the set of fruit and also upon the strength of the tree. Well-pruned trees tend to set the fruit better because there is a concentration of the food substances into fewer limbs and fruits. Pruning can be used to effectively go a long way toward distributing the crop over the bearing surface, and, in so placing the crop load, limb breaking can be reduced to a minimum.

A tall, spreading bearing surface, such as shown in Photograph 1, will undoubtedly give maximum yields but, as will be seen from Photograph 2, when the limbs bend down into a compact mass which ultimately comes to rest on the ground, both color and quality are reduced accordingly. In trees of this type only about one-half of the shoots may bear fruit at mid-season, thus it is apparent that there can be some reduction of limbs by pruning without cutting the yield materially, which will, at the same time, allow more light to enter.

A stocky, strong framework prevents this concentration of the bearing surface into a dense mass by the crop load and, when kept opened up by pruning, the light and color problem is partly taken care of.

It will be seen, then, that pruning can be used effectively in partly correcting an overload and in avoiding a tree type which acts against the grower in obtaining color, size and quality.

Just a word now in regard to fertilizers or the general problem of nutrition. Eastern peach growers are in quite a different position in controlling the nutrition of the tree, as compared to the irrigated districts, because of the great variation in the moisture supply. It is difficult to evaluate the nutritional problem, year after year, with some of the extremes which have to be met in the available water supply to the trees. The more recent research is showing a great deal about some of the limitations in nitrogen, potash, lime and many of the so-called "trace" elements, but these are all very intimately tied up with the water supply. This is especially true at the end of the season when the fruit is sizing up.

It is difficult to influence size and quality in the crop from the nutritional angle alone unless pruning and thinning are considered a part of the picture. Thus, 15 pounds of nitrate of soda per tree failed to give adequate size or quality in heavily pruned trees when the crop was excessive and unthinned. Likewise, in unthinned trees, fertilizer applications failed to increase size enough when the set was excessive. On the other hand, when nitrogen is deficient in the soil, the addition of relatively light applications

(Continued on page 10)

JULY, 1948

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AMERICAN FRUIT GROWER

PAGE 7

STATE NEWS

GEORGIA—That the co-operative publicity and merchandising program of the Georgia and Carolina peach growers inaugurated last year was no "flash-in-the-pan" effort is indicated by the activity under way in pushing the current season's crop. Every effort is being made to inform the wholesale and retail trade through newspaper advertising and point-of-sale display material, that properly graded and properly packed peaches from the three states are available.

Under a co-operative plan worked out between the Georgia-Carolinas Peach Marketing Board and the national cereal manufacturers, breakfast foods and peaches will be featured in point-of-sale material.

In marketing this year's crop, two popular consumer packages will be used extensively, the Wrapak, which holds a maximum of eight peaches and packs 12 to a shipping container, and the window-top Gibraltar container in which seven to 10 peaches are packed. The corrugated Snap-Pak shipping and display container, a feature of which is the cover which is easily snapped on and off, will also be widely used.

Voluntary contribution of two cents a bushel comprises the fund for the Tri-State merchandising program.

CALIFORNIA—Citrus growers have discovered that it pays to irrigate hillside orchards, and orchards on sandy or gravelly soils, with portable under-tree sprinklers, according to J. E. Christiansen, assistant irrigation engineer, University of California. Not only are they economical, but the sprinklers permit better distribution of water, reports Mr. Christiansen.

UTAH—Through efforts of the State Horticultural Society co-operating with governmental agencies, a Federal Peach Marketing Agreement was brought to Utah peach growers. If the agreement becomes effective, an administrative committee composed of six producers and three shippers will have the power to regulate the size and grade of peaches moving in interstate commerce. In years of excessive production, the regulation of grades and minimum sized fruit should eliminate shipments of inferior fruit that seriously competes with higher quality fruits. Two states are now marketing their peaches under a Federal marketing agreement. California had one in effect for several seasons and Colorado moved the 1939 crop under a Federal marketing agreement.—A. STARK, Sec'y, Logan.

ARKANSAS—Mid-summer meeting of the State Horticultural Society will be held at the University of Arkansas, Fayetteville, July 10. Talks to be presented by university authorities will cover the codling moth situation and the Ozark apple industry outlook. Prominent growers will present their practical experiences in soil management, strawberry growing and peach culture.—THOMAS ROTHROCK, Sec'y, Springdale.

OHIO—The Northern Ohio Food Terminal, center of Cleveland's wholesale produce trade, recently sponsored an eight-weeks' Fresh Fruit and Vegetable Merchandising School for the benefit of retail grocers, their clerks and members of their families. Instruction was given in perishable food merchandising. Window display technique was stressed. Tentative plans are being made for another school this fall. Thus the important link between retailer and consumer is gradually being strengthened through the efforts of

ANNUAL IAA CONVENTION

The 45th convention of the International Apple Association will be held at Hotel William Penn, Pittsburgh, Pa., August 13-16. All persons interested directly or indirectly in the apple or pear industries or fresh fruits and vegetables, together with the ladies, are invited to attend. Detailed information can be obtained from R. G. Phillips, secretary, 1108 Mercantile Bldg., Rochester, N. Y.

growers, field service men of the various merchandising groups, wholesalers and dealers.

COLORADO—E. W. Barr is closely watching 2000 strawberry plants he set out this spring. He is keeping records on production and adaptability of the varieties to the region. His efforts are bent toward finding a strawberry variety which does unusually well in the Routt County area which he serves as county agent.

WASHINGTON—The magic of modern mechanical engineering has been recruited to flatter the palate of apple lovers via automatic refrigerated vending machines. Refrigerated Vendors, Inc., is convinced that consumers will eat more apples if the fruit is kept at the proper temperature. Plans call for the placement of 50 to 250 machines in each of a number of cities on the Pacific Coast the coming season and sell the chilled apples at five cents each. A test is now under way in Seattle.

WEST VIRGINIA—Aware of the fact that contour-planted orchards are more easily cultivated, sprayed and harvested, a number of the leading orchardists in the Eastern Panhandle, including Ed Miller, Cecil Woods, Paul M. Hawkins, J. A. Proctor and J. E. McDonald, last year's State Horticultural Society president, have planted their new orchards on the contour. Besides saving work, moisture is conserved in contour-planted orchards and soil-washing is prevented.

MASSACHUSETTS—The serious problems of

• C. P. CLOSE •

The many friends throughout the United States were saddened to learn of the death of C. P. Close, of College Park, Md., on May 20, at the age of 72 years. Mr. Close served on the staffs of the New York State Experiment Station and the Utah, Delaware and Maryland state colleges, and for 26 years was in the U.S.D.A., retiring from a 20-year period in the extension division in 1938. From 1907 to 1927 he was secretary-treasurer of the American Society for Horticultural Science, of which he was a charter member. He was a life member of the American Pomological Society and at the time of his death was chairman of the New Fruits and Nuts Committee. The Close apple, one of his horticultural creations, was named for him. American horticulture has lost a clear-thinking, sincere and ardent friend.

growing and marketing fruit efficiently and profitably will dominate the two-day fruit grower's meeting, July 25-26, during Massachusetts State College Farm & Home Week at Amherst. Current problems to be considered include: Hurricane-damaged trees, national tree removal program, the 1940 spraying season, apple promotion and advertising, fruit packages. A tour of the experimental fruit plantations at State College will be one of the high spots of the meeting.—W. R. COLE, Sec'y, Amherst.

MISSOURI—Seven-pound open-mesh bags filled with Valencia oranges were introduced to retailers in St. Louis in June. Ready acceptance by the trade indicates the approval of a consumer package that enables the housewife to see the golden fruit. One retailer reported a movement of 200 bags or the equivalent of 20 standard boxes of fruit in a two-day period.

IOWA—Indications are Iowa will produce one of the best and largest apple crops that it has had in many years. June 1 condition report gave Iowa 84 per cent of a full crop, compared with 65 per cent in 1939 and 66 per cent for the 10-year average. Thorough spraying, it is believed, can hold apple scab in check in the orchards where it has shown up to a small extent. In central and southern Iowa codling moth worms may give trouble. If reports are true that the Jonathan crop in near-by states will be light, Iowa will be favored with a good market for her Jonathans, of which she has more than any other one variety.—R. S. HERRICK, Sec'y, Des Moines.

RHODE ISLAND—A light fruit crop is anticipated in the State because of the unfavorable weather during blossom. Wet weather has tremendously increased black rot leaf infection—an aftereffect of the hurricane, it is believed, as many dead twigs are still found in the treetops, serving as a source of infection. Apple scab has been serious and growers have had a difficult time keeping foliage covered.—E. P. CHRISTOPHER, Sec'y, Kingston.

TENNESSEE—Under the auspices of the State Horticultural Society, peach growers, their wives and friends, will make a three-day tour the week of August 5 visiting their competitors in western South Carolina. Complete details can be had by writing to Prof. G. M. Bentley, University of Tennessee, Knoxville, or: A. N. PRATT, State Horticulturist, Nashville.

KANSAS—A decrease in the consumption of apples hasn't shaken J. E. Hunt's confidence in the King of Fruits. Mr. Hunt of the Hunt Brothers Orchard Company and Jerry Britten have added to their apple orchard holdings several hundred acres of choice young apple trees near Troy. This added acreage undoubtedly gives Mr. Hunt the largest apple orchards in Kansas.—GEO. W. KINKEAD, Sec'y, Topeka.

NEW YORK—Prospects for 1940's fruit crop in the State, in general, are good. An unusually wet and humid spring may be expected to take its toll in fungous troubles. Such a rare occurrence as brown rot infection of apricot blossoms and young fruits and leaves, of peaches and sweet cherries, and even of green fruits of sour cherries, has been seen this year.—H. B. TUKEY, Geneva.



WANTED

TWO

MILLION



Carroll R. Miller

JOHNNY APPLESEEDS

By CARROLL R. MILLER

In submitting this article for publication in **AMERICAN FRUIT GROWER**, Carroll Miller, secretary-manager of Appalachian Apples, Inc., wrote: "Here is something which has been growing on me the last several months as both a real necessity and a practical possibility: Organizing the army of apple growers over the United States to become missionaries for their business, insofar as this organization is possible. When we look into it from its most favorable angles, as outlined in this article, it does seem that we have been overlooking a hugely helpful force."—THE EDITORS.

The grocer . . . "he can make us or break us."

CITRUS (oranges, grapefruit, lemons, tangerines) is spending about three million dollars yearly for advertising and promotion. Apples are spending about one-tenth that—\$300,000. It will be years, certainly, before apples can hope to match that three million. "Apples are different," we have been saying. "Apple growers are so numerous and so scattered. They cannot be organized. That is a weakness in apples," we say.

Wait a minute! Maybe therein lies our strength, instead of our weakness.

We may not have three million dollars available, but we have two million men and women, who, organized, can make three million dollars a puny thing. One apple grower, Johnny Appleseed, changed the course of the whole apple industry, single-handed. Think of the results if all growers do some real missionary work for their own business.

Roughly, two million of the nation's six million farmers grow apples, in small or large quantities. Two million men—what an apple-selling organization that would make, placed as it is strategically all over the United States, near almost every town and city! A sales army such as the world has never known. Then, if one of the

women of the grower's family could also be enlisted, the co-educational potential army is four million strong. Maybe we can recruit only one out of four—we have a million. Or one out of eight—we still have 500,000. Three million dollars is less than two days' wages for one-half million people.

What would they do, and how? The program is clear-cut. First line of attack is the neighbors. Second objective is the grocers of the neighborhood. Ford Quitslund, competent economist who has studied this deeply, says, "What the retailer does largely determines the volume of apples moved." The grocer is that important to apple growers. He can make us or break us.

Now the grocer is extremely sensitive to what his neighbors think of him. Keeping their good will is most important. American merchandising is dominated by the dictum, "The customer is always right." Thus the field lies wide-open. But it must be plowed properly. Partnership is the theme: Grower & Grocer, Inc.

The grocer doesn't know much about apples. Apples to him are only one of the 500 or so items he keeps because the public calls for them

and/or because there is a profit in them for him; exactly as we grow apples because of the profit we expect from them. Manufacturers learned long since that if the retailer is to know much about their particular product, he must be taught. So food manufacturers maintain crews of field men to educate grocers about their product. Such work can be done much more effectively, it goes without saying, by a neighbor-customer of the grocer.

This partnership basis will be just as helpful to the apple grower as to the grocer, maybe more so. Farmers (including apple growers) have been inclined to think of the grocer as a man who rents a store room, pays the grower little or nothing for his produce, puts on an inordinate mark-up which returns the grocer in profit twice what he pays the grower, a mark-up so high that it almost stops the public from buying apples, thus reducing consumption and adding to the grower's woes.

After hanging around grocery stores for years, we are fairly certain that it is the most competitive business in the country. About 25 per cent of grocers fail each year. Apples are *(Continued on page 14)*

AN APPLE ON THE TREE *is worth* A BUSHEL ON THE GROUND



You know, Mr. Fruit Grower, that no matter how clean your apples may be, they have got to stay on the tree until harvest to develop color and give you a profit.

FRUITONE

Reg. U. S. Pat. Off.

The Hormone Spray • Stops Preharvest Drop

ORDER TODAY

Because of the heavy demand for FRUITONE rush deliveries cannot be guaranteed. To assure your supply, place your order immediately. Write for prices on larger quantities, stating the number of trees and their age.

Hold your Williams Red and Wealthy apples on the tree to obtain the high color that brings top prices in the market. FRUITONE reduces drop on such apples to the vanishing point. This will show you what to expect on later apples.

Simply mix the FRUITONE powder in your spray tank at the rate of $\frac{1}{2}$ lb. to 100 gals. of water. This new powder contains, in the same high purity, the synthetic hormones which have been found by the Bureau of Plant Industry of the U. S. Department of Agriculture to be the most effective in preventing premature drop of apples.

Field tests made last year on more than twenty varieties of apple trees showed that hormone chemicals of our manufacture reduced drop from an average of 66.2% to 15.8%. Examination this spring showed that these trees were vigorous and normal in every respect.

12 oz. can costs \$5.00 and makes 150 gals. of spray. 5 lb. can costs \$22.00 and makes 1,000 gals. of spray.

Order from your dealer.

Distributed by:

CALIFORNIA SPRAY CHEMICAL CORP.
Elizabeth, N. J. Richmond, Calif.

Manufactured by:

AMERICAN CHEMICAL PAINT COMPANY
HORTICULTURAL DIVISION AF-3 AMBLER, PA.

PEACH CONDITIONING

(Continued from page 7)

goes a long way in increasing both size and quality.

A balanced treatment of the orchard from the standpoint of pruning and fertilizing makes the production of a quality crop much more certain. Neither of these treatments alone, however, can be effective without some attention to limiting the crop by thinning. So, let's look at some of the main features of this practice as it has been made more certain by some of the recent research.

Thinning, like pruning and fertilization, is an old practice, well founded in experience. Naturally, as late as this, the job is already done, or should be done in most sections of the country. This being the case, only a few special phases of this practice need be mentioned.

The first point which will be discussed is the time of thinning. When should peaches be thinned? Offhand, it would seem that the earlier the better, and that, in the main, is true. On the other hand, there is some uncertainty in thinning before the June or third drop is over. While there is something to be gained from thinning early, that is, before the drops are completed, there is also something which may be lost. The excess crop does not result in limb bending until the peaches reach some size in the second growth period. Then the crop load first begins to tell. When the set is light or just right, there is no thinning job in sight, but here is where the "rub" comes. Suppose there is an excess crop on the tree and this fact had not been fully appreciated until now. Then what? Can anything be done? Or, let's put the question this way: When does the fruit excess really become most critical—now or at harvest?

This point does not need to be argued with growers who have had the disappointing experience of a "bumper" crop of peaches of "off" size. The whole problem of thinning needs to be viewed from the standpoint of the size of fruit desired at harvest. (See Photographs 3 and 4.) Maximum yields probably can be obtained from unthinned trees, so here again a compromise has to be made between number per bushel and size. This point can be seen from the following figures from the Illinois Agricultural Experiment Station:

| Size of Fruit (inches) | Approximate No. in 50 pounds |
|------------------------------------|---------------------------------|
| 1 $\frac{1}{4}$ to 1 $\frac{1}{2}$ | 960 |
| 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$ | 611 |
| 1 $\frac{3}{4}$ to 2 | 340 |
| 2 to 2 $\frac{1}{4}$ | 250 |
| 2 $\frac{1}{4}$ to 2 $\frac{1}{2}$ | 195 |
| 2 $\frac{1}{2}$ to 2 $\frac{3}{4}$ | 140 |
| 2 $\frac{3}{4}$ to 3 | 110 |
| 3 to 3 $\frac{1}{4}$ | 90 |

It will be seen from this table that

JULY, 1940

**THERE'S STILL TIME
TO NAME NEW
SPRAY AND WIN
\$10.00**

Names are pouring in for the new hormone spray, the magic of which prevents pre-harvest drop of apples. Even though it's your busy season, put on your thinking cap and send in your suggestions and you may win \$10.00. Here are some of the names already suggested by readers:

| | |
|-----------------------|---------------------|
| Cling spray | Save-A-Crop spray |
| Harvest-Hang spray | Color spray |
| Stay spray | Have-and-Hold spray |
| No-Drop spray | Retard spray |
| Stop-Drop spray | The Fixed spray |
| Steropone spray | Drop spray |
| Anti-Fruit-Drop spray | Profit spray |
| Stay-On Spray | Fas-Fruit spray |
| Beats-Our-All spray | Hold-Tite spray |
| Dropcide spray | Stop-Loss spray |
| Hormo-Drop spray | Hold-Fast spray |
| Stickspray | Pre-Pick spray |

What would you call this new spray? If the name you submit is selected by the judges **AMERICAN FRUIT GROWER** will pay you \$10.00, provided you are the first one to suggest it.

Winning name will be announced in August issue. Send your suggestion to Editorial Department, **AMERICAN FRUIT GROWER**, 1370 Ontario St., Cleveland, Ohio.

both the number and the size of peaches are important factors in yield. There are, for instance, about twice as many peaches in a bushel with a one and three-fourth-inch size down as in a two and one-half-inch size. The price differential may be considered in these two extremes, but in the "glut" years when the crop excess is heavy, the spread in price between the higher and lower grades is often disappointing.

We have, then, in the crop excess a limiting factor to be evaluated in much the same way as pruning or a nitrogen deficiency. When in a state of unbalance, the overload may be a more serious matter to deal with than suspected, and it can be corrected only by thinning. These three old standbys—pruning, thinning and fertilizing—occupy just as important a place in a well-balanced program now as ever.

Just a word now from the standpoint of the consumer. In the introduction emphasis was placed upon the high place held by the peach in the esteem of the consumer. The relative position of a fruit in the public favor is determined by a competitive process in the market or on the table and gains final expression in terms of the quantity bought.

This position is not determined by individual growers but by the industry as a whole. It is the peach, or any other fruit, for that matter, against the field. When the crop is high in quality, as it is generally put on the market, that fact is quickly recognized by the consumer and general satisfaction is expressed in repeat orders
(Continued on page 15)

STOP-DROP

**With HORMONE MAGIC and
S-W Quality in the New
Naphthalene Acetic Acid Spray**

Don't let other growers get the "drop" on you! Order now and be prepared to prevent pre-harvest drop with the HORMONE MAGIC of the new Naphthalene Acetic Acid Spray. Keeps apples on the trees—10 days to 3 weeks longer—until they get full color and full size, and you can get full prices for them. Don't take chances! Make sure your supply of this new spray is Sherwin-Williams in Standards of Quality. One-gallon will make 800 gallons of spray—easy to mix. Be prepared! Write for prices and full details, then place your order in time to protect your early varieties.

THE SHERWIN-WILLIAMS CO.
INSECTICIDE DIVISION 1011 PROSPECT AVE. CLEVELAND, OHIO

NIAGARA-STIK

"The New Hormone Anti-Drop Apple Spray"

Scientifically stabilized and balanced for best efficiency and may be used in all types of water.

Niagara now offers growers everywhere this new Hormone spray for stopping premature drop of apples.

Niagara-Stik contains synthetic hormones that stop the formation of the abscission layer where the fruit stem joins the fruit spur.

Niagara-Stik is manufactured to the standards found by the Bureau of Plant Industry, United States Department of Agriculture, to be most effective in stopping premature drop of apples.

Easy to mix, easy to apply—quick to act. Holds fruit on the trees from 10 days to three weeks, according to varieties.

Economical and effective.

For prices and further details, see your Niagara Dealer, or write to—

NIAGARA SPRAYER AND CHEMICAL CO., INC.

Middleport, New York

Jacksonville, Fla.

San Francisco, Calif.



Effectively Control Plant Diseases—

Use T.C. COPPER FUNGICIDES

Water insoluble—26%—34%—53%

WRITE FOR FREE BULLETIN

Manufactured by **TENNESSEE CORPORATION**
ATLANTA, GEORGIA
LOCKLAND, OHIO

FRUIT CROPS

By T. J. Talbert and A. E. Murnek. The newest practices and established fundamentals of orchard and small fruit culture are covered in the 345 pages comprising this volume. Fruit growing as an occupation, new fruit introductions, propagation, sites and soils, irrigation and drainage, soil management, insects and diseases, spraying and dusting, harvesting and grading, and marketing are discussed. Chapters are included on individual fruits and nuts. 112 illustrations add to the interest and value of the book. Sent postpaid on receipt of \$3.75.

AMERICAN FRUIT GROWER

CLEVELAND, OHIO

1370 ONTARIO STREET

AMERICAN FRUIT GROWER

PAGE 11

OPPORTUNITY ADS

Only 15¢ a Word—CASH WITH ORDER
ADDRESS: AMERICAN FRUIT GROWER
1370 Ontario Street, Cleveland, Ohio

BABY CHICKS

CAN MAKE IMMEDIATE SHIPMENT OF BARRED, White Rocks, S.C. Reds, White Wyandottes, Buff Orpingtons, AAA Grade \$5.90-100; Cockerels \$5.75; Pullets \$7.75; English White, Brown Leghorns, Anconas \$5.90; Cockerels \$2.45; Pullets \$10.95. Heavy mixed \$5.25. Assorted \$4.75. We pay postage, guarantee live delivery. JACKSON COUNTY HATCHERY, Box 17, Seymour, Indiana.

DAVIS CHICKS FOR IMMEDIATE SHIPMENT. BARRED, Buff, White Rocks, Reds, Wyandottes, Orpingtons, English White, Brown, Buff Leghorns, Anconas \$5.95-100; \$30.45. Also sexed chicks. We pay postage, will ship C.O.D. DAVIS POULTRY FARM, Route 3, Ramsey, Indiana.

DEPENDABLE CHICKS. EASY PAYMENTS. OLDEST Illinois-U.S. approved hatchery. Year-round deliveries. \$3.95 per 100, up. CHESTNUT HATCHERY, Box 25, Chestnut, Illinois.

BERRY BOXES

GREEN AND WHITE BERRY BOXES ATTRACTIVELY display your berries and create consumer demand. Write for Liberal Discounts. ROLLIN BOX COMPANY, Benton Harbor, Michigan.

CIDER MILLS

CIDER TIME, FREE, HOW TO KEEP CIDER SWEET, makes vinegar quickly, money from cull apples. Presses, graters, supplies. Honey and sweet cider make an excellent roadside combination. PALMER BROS., Cos Cob, Connecticut.

CIDER MILL SUPPLIES

CIDER MILL SUPPLIES MUST REFLECT A KNOWLEDGE of your needs. Mount Gilead Cider Mill Supplies have been the choice of orchardists for half a century. Write for the new Catalog 8301-B and price list. THE HYDRAULIC PRESS MFG. COMPANY, 402 Lincoln Ave., Mount Gilead, Ohio.

CONVEYORS

GRAVITY ROLLER CONVEYORS MADE TO ORDER. Alloy steel throughout. Ball bearing rollers. Write for discounts on our bushel special. LOVE TRACTOR INC., Eau Claire, Michigan.

CROTALARIA SEED

CROTALARIA SEED: SPECTABILIS, 8¢ POUND; INTERMEDIA, 15¢ POUND. GRAND ISLAND NURSERIES, Eustis, Florida.

EDUCATIONAL

MAKE UP TO \$25-\$35 WEEK AS A TRAINED PRACTICAL nurse. Learn quickly at home, spare time. Easy tuition payments. High school not required. Earn while learning. Booklet free. CHICAGO SCHOOL OF NURSING, Dept. F-7, Chicago, Illinois.

FEMALE HELP WANTED

BIG MANUFACTURER WANTS HOUSEWIVES WITH spare time to wear FREE SAMPLE DRESSES, and show to friends. Give size, age. HARFORD, Dept. H-153, Cincinnati, Ohio.

FOR SALE

52-ACRE APPLE ORCHARD, 18 YEARS OLD, 8 MILES north of Springfield, Ohio. House, barn, sales shed, and equipment. Good local markets. Commercial varieties, principally Red and Yellow Delicious. Priced very reasonable. Address MORRIS PLAN BANK, Springfield, Ohio.

CUTLER-MOE FRUIT WASHER, GRADER, WITH light plant to operate, good as new. Washer alone cost \$2800.00 new. Price all three items \$750.00. DON SULLIVAN, Room 10, Savings Bank Building, Chillicothe, Ohio.

FOR HANDLING THE MOST TENDER FRUIT SAFELY, economically, and quickly, write us for information regarding our Peach and Apple Picking Bags. TOWNSEND COMPANY, Lake Wales, Florida.

COMPLETE YORK 8-TON REFRIGERATING MACHINE, good as new, half price. Also Logan roller conveyor, apple grade, brusher. LUTHER CREASY, Catawissa, Pennsylvania.

FRUIT JUICE CLARIFIERS

CLARIFY AND PRESERVE THOSE FRUIT JUICES with the effective MOUNT GILEAD PECTINOL COLD PACK PROCESS. It is simple and speedy—and is the most practical way to step up profits. For complete information about PECTINOL A, write THE HYDRAULIC PRESS MFG. COMPANY, 403 Lincoln Avenue, Mount Gilead, Ohio.

FRUIT JUICE FILTERS

THE MOUNT GILEAD CLEAR-FLO FILTER FAR surpasses any other filter on the market for effectiveness—rapid filtering—ease of cleaning—economy. It assures complete clarification of cider and other fruit juices. It will pay you to look into this new filter. Write THE HYDRAULIC PRESS MFG. COMPANY, 401 Lincoln Avenue, Mount Gilead, Ohio.

FRUIT JUICE PRESSES

FOR MAXIMUM RETURNS FROM YOUR CROP TURN IT into delicious fruit juice with a MOUNT GILEAD CIDER OR FRUIT JUICE PRESS, as hundreds of other orchardists are doing. There is a Mount Gilead Press to meet every need. Write for catalog and the new 1940 price list. THE HYDRAULIC PRESS MFG. COMPANY, 404 Lincoln Ave., Mount Gilead, Ohio.

INSECT TRAPS

SEND FOR OUR CATALOG ON ELECTRIC INSECT TRAPS. CESCO, 230 Warren Boulevard, Chicago, Illinois.

PHOTO FINISHING

ROLLS DEVELOPED—TWO BEAUTIFUL DOUBLE Weight Professional Enlargements, 8 Never Fade Prints, 25¢. CENTURY PHOTO SERVICE, LaCrosse, Wisconsin. GUARANTEED. FILM DEVELOPED, 10 PRINTS, 2 enlargements 25¢, 20 prints 25¢. QUALITY PHOTO. Hutchinson, Kansas.

SERVICE BARRELS

FRESHLY EMPTIED, 8-HOOP, 50-GALLON, WHITE oak, whisky barrels, \$1.00 each. 6-85, 20 up 75¢ each. Ask for carload prices, cash with order. SHO-OFF ORCHARDS PRODUCTS COMPANY, 107 N. Washington, Peoria, Illinois.

PAGE 12

MARKETING ADJUSTMENTS

(Continued from page 5)

such action was deemed to be advisable.

Certain of the problems of the apple industry have been outside the control of growers. This is especially true as they relate to the wholesale and retail distribution of the fruit. Formerly growers had little or no chance to influence distribution operations, but in more recent years the work of the National Apple Institute, and of the various wholesaler and retailer groups co-operating with it, has been a substantial influence in improving the market.

The ability of the apple industry to work as a unit, regionally and nationally, promises substantial improvement in distributing conditions, provided the various groups have the support of a large majority of producers. This is especially important in view of the character of aggressive and concentrated sales programs for other commodities which compete directly with apples.

The use of consumer packages has been discussed a great deal, and considerable progress appears to have been made in certain areas along this line. It is a field which is worthy of further development, especially as it may make possible the placing of fruit of better condition in the hands of consumers, thus encouraging additional sales.

A number of problems exist in the retailing of fruit, which need further study and experimentation. One of these involves the need for some method for improving the condition of fruit displayed in retail stores. Studies are being made to determine the effect of reducing the amount of apples on display at a particular time as a means of securing a more rapid turnover, with resulting improvement in the condition of the fruit. When the results of such studies are ready they should be made available to retailers generally so that they may be helped in selling a larger quantity of fruit.

The apple is an important source of many manufactured products. Almost from the beginning of apple growing, cider has been one of the most important of these. Yet only within the last few years has substantial progress been made to preserve fresh cider for future consumption through processing. If it should become possible for substantial quantities of "C" grade or "Utility" apples to be absorbed in the juice outlet, the result would be a considerable reduction in the quantity of fruit offered in the fresh market, thereby improving grower prices.

During recent years considerable interest has been shown in tree removal. Several state groups have considered this matter. In view of the biennial character of apple production, the available supply is not excessive in years of a light crop. Therefore it does appear undesirable to consider tree removal to reduce the total crop. On the other hand, experience has shown that the demand for many of the older varieties has been substantially reduced, and that growers have extreme difficulty in selling such fruit. Certainly

SERVICES

REAL ESTATE; PATENTS; INSURANCE; CITRUS fruits; professional services. WHITCOMB, P. O. Box 216, Tampa, Florida.

STRAWBERRY PLANTS

MILLIONS CERTIFIED YELLOW FREE BLAKEMORE strawberry plants. Write for prices. R. R. McUMBER, Greenfield, Tennessee.

TRACTORS—MACHINERY

WRITE FOR FREE LARGE 1940 CATALOG OF USED and new tractor parts. Satisfaction guaranteed. CENTRAL TRACTOR WRECKING COMPANY, Boone, Iowa.

TREE BANDS

CHEMICALLY TREATED TREE BANDS. M. A. KOELLER, Barry, Illinois.

WANTED

WANTED—USED HYDRAULIC CIDER PRESS 2000 to 3000 gallons per ten hours. What have you? POST OFFICE BOX 141, Marshfield, Missouri.

AMERICAN FRUIT GROWER

there is no reason for continuing to market fruit for which there is little demand.

In conclusion, while the present situation in the apple industry is an unfavorable one, the correction of several of the major causes of this situation should improve the economic condition of growers.

The only source from which the apple grower can expect to receive a price commensurate with his production cost is from the fresh fruit market. He must secure a sufficient amount from that outlet to pay for the cost of the fruit sold for that purpose, and also for the losses incurred on fruit used for less remunerative outlets. In a recent apple hearing in the Pacific Northwest, testimony indicated that production costs up to the time of picking ranged from 20 to 40 cents per bushel. The producers' primary problem is to secure a large enough proportion of the final retail price at least to cover these costs. In many instances the increased return which is required is not more than 10 cents per bushel.

In the past several years you have pioneered a new field in your co-operation with wholesaler and retailer distributor groups, and much further progress is certain to be made along those lines in the future. We must realize that the retailer and all others in the chain of distribution are essential factors in the marketing process, and the net return which the growers ultimately receive for their apples depends upon the efficiency and economy of distribution.

Most careful consideration should be given to the possible development of national or regional grower organizations to function in certain fields of activity. Such organizations should not compete with existing groups, but rather should supplement them where there is need for more effective grower representation.

There is real need for a nationwide program within the apple industry for effective dissemination of economic information to growers. This is especially important at this time because producers are now carrying the major responsibility for the decisions which actually make the apple market. Growers must have a much more thorough knowledge of market supply and demand, as well as of production, before they can reach sound conclusions in dealing with their problems. They must learn that the orderly movement of an adequate, but not excessive, volume of fruit into fresh consumption channels will be the primary method by which they can expect to secure sufficient income to pay the costs of production and give them a reasonable profit.

Some method or methods should be developed for determining the proper grades which should be packed each season in the light of the supply and demand situation. This might be done on a state, regional or a national basis, and should also govern the approximate quantity of fruit which appears desirable to store in view of competitive fruit supplies and the general level of consumer purchasing power.

Apple growers must realize that through the proper grower organization and co-operation they can develop the by-products outlet as a means for improving the price of fresh apples, as well as an outlet for getting rid of lower grade fruit. The success which has been achieved along similar lines in dealing with other commodities justifies an attempt in this direction by the apple industry.

Fruit growers contemplating the construction of a refrigerated storage on their fruit farm will find much valuable information in Bulletin 724, entitled, "Farm Refrigerated Storages," by Earl L. Arnold, published by the Cornell University Agricultural Experiment Station, Ithaca, N.Y.

JULY, 1940

NEW

- FREE KNIFE
- PRUNING SHEAR
- PACKAGE MARKER
- DOUBLE-DUTY LADDER

By HANDY ANDY

FREE KNIFE •

A special free offer of the steel-bladed grafting knife illustrated below is made to fruit growers by the Scheffer and Rossum Company, manufacturers of the original "Wenatchee" fruit picking bag. To obtain this knife, it is merely necessary for the owner or operator of an orchard to write for information on the picking bag and forward at the same time the name of his orchard supply dealer. Purpose of the offer is to acquaint more growers with their bag which has been in wide use, it is said, for the past 18 years.

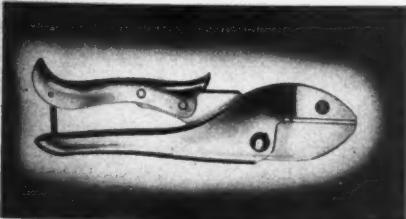


Wenatchee picking bags, made of canvas, are adjustable for one-half or one-bushel capacity and empty easily from the bottom. Front adjustable shoulder straps permit proper adjustment for any person. Endless leather-covered steel frame is shaped to fit the body and keeps bag mouth open. Adjustable waist strap secures bag to body, preventing swinging and discomfort. Points of wear are reinforced with leather.

PRUNING SHEAR •

Faster, easier pruning with a minimum of cramp and strain is stated to be the outstanding advantage of the Improved "100" pruning shear, an E. C. Atkins and Company product. Design of the shear incorporated many suggestions from leading horticulturists. Its "draw-in" action assures a clean, sharp cut without injury to plants or trees. It is small and compact, yet strong enough, it is claimed, to prune anything up to small limbs.

The broad-grip handle is free of handle stops that might pinch or blister hands. Alloy steel cutting blade provides a keen cutting edge that requires a minimum of



resharpening. To protect the blade when not in use, a spring steel handle lock holds the shear firmly closed. This lock folds into the back of the handle when the shear is in use. The entire tool is chrome plated to prevent rusting.

PACKAGE MARKER •

With the harvest season in full swing comes the need for marking and identification of fruit packages. The "Speed-Mo" rubber stamp manufactured by the Rivet-O Manufacturing Company is complete in one unit, having interchangeable type or logotypes for size, grade, variety and brand; thus complete marking is possible in one operation, and one stamp serves to properly identify all the fruit packages of the grower.

JULY, 1940

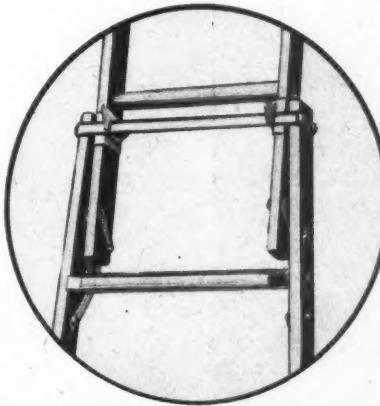
or orchard. The stamp can be made to meet the requirements of any state.

The Chicago Metal Manufacturing Company offers the many growers interested in irrigation a helpful folder entitled, "FLEX-O-SEAL QUICK COUPLING PIPE", which covers the use of their portable lightweight pipe and flexible couplings on level or rolling ground.

DOUBLE-DUTY LADDER •

Equipped with the patented steel joint illustrated below, the 2-Way ladder of the Heider Manufacturing Company is easily converted from a stepladder into a fruit picking or pruning ladder. The pointed leg which supports the stepladder, when raised, locks into rigid position and the stepladder becomes a straight ladder with pointed top that readily slips in between the branches of the tree.

Construction of the ladder is of pine, and steps and rungs are rodded with one-fourth-inch rod. Metal parts are of steel and finished in aluminum. The ladder is bolted together with rust-resisting cadmium bolts. Because of the special joint, which permits folding, the 2-Way Fruit Step and Straight Ladder can be readily carried and stored.

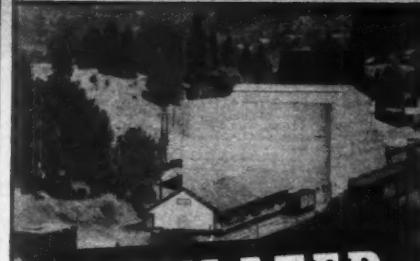


THE CARE AND USE OF SHEET METAL ON THE FARM is the title of the American Rolling Mill Company's helpful booklet, available upon request. Suggestions and information contained in it cover the care of sprayers and other farm machinery, water systems, septic tanks, etc.; painting, cutting, welding and soldering of sheet metal; sheet metal roofing and siding; and the care of stainless steel and porcelain enamel products in the home.

Descriptions and illustrations of such boron deficiency troubles as corky core, drought spot, rosette, dieback and apple measles, together with corrective recommendations, are included in the booklet of the Pacific Coast Borax Company entitled, BORON IN AGRICULTURE, free to any grower requesting a copy. The literature included in the booklet is a condensed review of authoritative material which has appeared in numerous publications.

Attractively arranged and profusely illustrated is the "ORCHARD FRESH" FROM TREE TO TABLE booklet of the Baker Ice Machine Company, Inc. Illustrations show some of the outstanding installations of Baker machinery in fruit pre-cooling rooms and fruit farm cold storages. The booklet will be sent upon request.

AMERICAN FRUIT GROWER



INSULATED with PALCO WOOL

Pear storage and pre-cooling plant. Placerville (Calif.) Fruit Growers Assn. Storage 400 car-loads fruit and 5,000 tons ice. 125 tons PALCO WOOL in floors, walls and ceilings.

PALCO WOOL offers Permanent Thermal Efficiency (.255 B.t.u. Peebles) at lowest possible cost. Non-settling and moisture repellent. Light in weight—goes further—costs less. Send for 16-page Insulation Manual telling why, how and where to install.

PALCO
INSULATION
TRADE MARK REG. U. S. PAT. OFF.
WOOL

THE PACIFIC LUMBER COMPANY
San Francisco - Chicago - Los Angeles - New York

From DURABLE REDWOOD BARK

OK Champion MOBILE IRRIGATION



OK Champion POTATO DIGGERS
— two and one row power diggers. Exclusive side hill steering and side hitch control. Ask for Potato Digger circular.

CHAMPION CORPORATION 4739 Sheffield Ave., Hammond, Indiana

Takes Dry Years Out of Farming

Defeat drought—raise more and better yields per acre. OK Champion movable irrigation has increased yields over 200% per acre. Soon pays for itself in more than 1 1/2 years. Costs as low as \$10 per acre. Write for circular.

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Destructive and Useful Insects

By Metcalf and Flint

Revised Second Edition. Popular volume on insects and their relation to mankind. 150-page section devoted to appearance, habits, life history and recommended control measures for insect pests of fruit crops. As with other parts of the volume, this section is profusely illustrated and a field key is provided to identify insects causing different types of injury on each kind of fruit. Chapters included on insect control and apparatus for applying insecticides. 981 pages.

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better than that, lots. Wherever business is highly competitive, competition stops profiteering. Any good grocer realizes fully that he must sell goods in order to stay in business. If his prices are high on apples, his neighbor grocer will bring him into line. So, in general, apples are being sold as low as they can be; in general, note.

What the grocer feels—and sometimes says—about growers is even more pungent, and about as correct. The grocer feels bitterly that the grower brings him the windfalls and the other culls he can't sell somewhere else and, if the grocer acts like he doesn't want them, the grower threatens to buy the family lard and peanuts from the grocer across the street. Grocers don't want to handle culls, in apples, or bread or anything else.

So . . . if grower and grocer can get together, there is much to talk about, for the good of both. The average grower knows almost nothing about the natural laws of food selling, about the grocer's expenses and troubles. The average grocer knows equally little about apple producing and packing. When the two understand each other, something big will happen. The partnership, Grower & Grocer, is a natural.

There is another rich field, beyond the neighbors and the grocers: the state departments of agriculture, experiment stations and extension divisions. These agencies are set up to help the farmer. If we don't guide their activities into apple channels, it is our own fault.

The home economists, home demonstration agents or home supervisors who now dot the nation are a trained educational force and influence millions of women. State departments of agriculture usually have free access to radio time, so have extension division chiefs and their county agents. Bulletins are issued and distributed plentifully and effectively by these groups. They will turn concentrated attention toward apples when their clients, the growers, request them to; but not until.

State institutions are easy to work on, with big results. In the heart of the Appalachian apple belt where apples are the chief agricultural product, investigation showed that apples appeared on institution menus shockingly far apart.

The obvious approach here is through the state growers' society and the secretary of agriculture to the governor, and after his permission and co-operation have been secured, an effective follow-up with heads of the different institutions, their dietitians and chefs; supplying these liberally with apple purchasing and cooking data.

Still another rich field is in each near-by town or city. Chambers of commerce, usually have their agricultural departments and Kiwanis, Rotary and similar clubs, their agricultural committees, all eager to help their farmer-neighbor. Their only trouble is that they won't know the problem until the growers place it before them. The job here is to organize special apple celebra-

tions in which grocers, schools and such groups participate.

For the two million—or four million or half-million—apple growers enlisting in this battle, there remains one more important objective: serve more apples in your own home. The number is astonishing of growers' families, mainly dependent upon apples for their living, who know not the breakfast delight of baked apples and milk; whose palates seldom or never meet *apfel kuchen*, apple pan dowdy, fried apples or even apple pie; growers whose living room table never sees a bowl of ripe, chilled apples in the winter evenings.

HOW TO ORGANIZE

A scheme, you say, but how can anything like a half-million growers and/or growers' womenfolk be organized for this? It is not so hard. The first half of it is an individual's job, the other three objectives are for growers' associations or groups.

The work schedule, outlined above, is simple: six frontal attacks on (1) the neighbors; (2) near-by grocers; (3) the grower's own kitchen and dining room; (4) state and Federal departments of agriculture, experiment station directors and aides, extension division chiefs and their home management specialists, county by county; (5) local town and city campaigns through chambers of commerce or luncheon clubs, with grocers, the schools, etc.; (6) the state institutions, normal schools, penal institutions, etc.

Who is to organize the army? How does it get started? Who will provide General Headquarters and Divisional Headquarters? Whence will come the equivalent of that doughboys' handbook, *Infantry Drill Regulations*, a textbook, brief and clear, for the campaigning grower?

Headquarters, general and divisional, are established. GHQ is National Apple Institute, at Columbus, Ohio, clearing house for the regional and state apple associations. Divisional headquarters will be the "regionals": Washington State Apple Advertising Commission at Wenatchee; Appalachian Apple Service at Martinsburg, W. Va.; New York-New England Apple Institute at 154 Nassau St., New York City; Ohio Apple Institute at Painesville; the Missouri, Illinois, Michigan, New Jersey and other associations. Those apple states not covered under these regionals have active growers' associations, state horticultural societies, county growers' associations. These would work directly through GHQ or the nearest regional.

There are active, efficient growers' cooperatives in all these areas capable of doing a fine local or state organizing job. The "I.D.R." textbook on the campaign for growers will be supplied by the regionals.

Our export markets have gone, for some time ahead at least. Citrus and other directly competing crops are becoming steadily larger. All this means even stiffer competition; means lower prices for our apples . . . unless we keep the grocer especially interested in apples, and keep our neighbors, the public, constantly informed as to the health merits, the deliciousness and the economy of the king of fruits.

We have, ready to our hand, the most effective advertising and promotion organization any fruit or food has ever seen. Shall we use our heads, or shall we continue to merely mimic citrus and the groups less fortunate than apples—the foods which lack man-power and have but dollars to spend? Citrus is spending ten dollars to apple's one. We can enlist 20 field men, and women, to their one.

Perhaps you don't like the term "missionary work." Then make it "salesmanship." No matter what the name, your business, apples, desperately needs this help. You can give it. Will you?

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PEACH CONDITIONING

(Continued from page 11)

if the price seems reasonable. Low quality in any considerable quantity of the crop is soon reflected in a slowing up of consumption, which, in turn, depresses the price. This tendency has been met in many kinds of produce.

In the peach, the most difficult compromise to make under practical conditions with all of the risk involved is that between maturity at picking time and quality. The public will make a universal and prompt response to tree-ripe quality just as you do as a grower when you select what you eat in your own orchard.

The point at which most could be gained with the peach at present is the reduction of the proportion of green, low-quality fruit which reaches the market. This is apparently not a debatable question, and all that needs to be said here is that the industry, as a whole, should study this phase of the problem as this year's crop comes on. Note the carrying quality in shipments of green versus firm ripe peaches. It is possible with modern quick-cooling methods to reach distant markets with peaches which have a yellowish background color and which will have a higher quality for the consumer.

Fortunately, with increased maturity at harvest, another factor which may be as important in the end as buyer acceptance, operates in favor of the grower, namely, increased size. The studies at the Illinois station show that the increase in size in the fruit as harvest is approached amounts to as much as eight to 10 bushels per acre per day, depending upon the size of the crop.

The inability of the tree to build up quality and size in an excess crop only tends to emphasize the necessity of taking care of each item throughout the season. The philosophy, then, of inducing quality in the crop by creating the right growth conditions will have to be modified to the extent that the crop excess limits this effort.

BOX STANDARDIZATION

Standardization of apple boxes in eastern and midwestern states was recommended at recent conferences in the East of apple grower representatives. Recommendations were made covering four wooden boxes, as follows:

For tight bulge, place and count pack, two sets of dimensions were recommended, the standard Northwest type bushel box, inside dimensions $10\frac{1}{2} \times 11\frac{1}{2} \times 18$ inches, having a capacity of 2173.5 cubic inches, and an alternate bushel box measuring $11\frac{1}{2} \times 12\frac{1}{2} \times 15$ inches, inside dimensions, containing 2156.23 cubic inches.

For face and fill, or jumble pack boxes, the $1\frac{1}{8}$ bushel was recommended, with a choice of two dimensions: $11 \times 13 \times 17$ inches, inside measurements, containing 2431 cubic inches, to be labeled $1\frac{1}{8}$ bushels, and $11\frac{1}{8} \times 13\frac{1}{8} \times 16$ inches, inside dimensions, 2425 cubic inches in capacity, to be labeled $1\frac{1}{8}$ bushels. The latter size is preferred by some growers as it is thought to load best in refrigerator cars.

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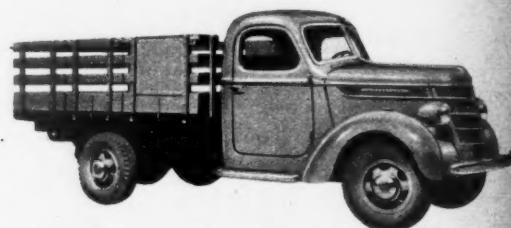
increase the usefulness of a truck in soft fields or orchards and wherever the going is tough or rough. The International dealer or branch can recommend a two-speed-axle model in a size for your loads.

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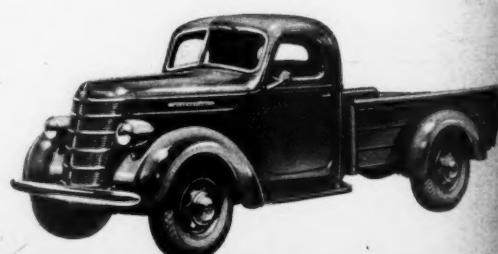
When you choose a truck—whether you need a heavy-duty truck or an all-purpose stake or pickup truck—consider the extra value built into *all-truck* Internationals. You wouldn't hire a sissie to dig a ditch. You'd get a two-fisted he-man who could stand the gaff. The same goes for trucks!

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